APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR		ATTORNEY DOCKET NO.
09/010,801	01/22/98	HAMBURG	M	07844/235001

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ART UNIT	PAPER NUMBER
2172	

DATE MAILED:

10/03/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

	Application No.	Applicant(s)
Office Action Summary	09/010,801	HAMBURG ET AL.
	Examiner	**Art Unit**	
	Ella Colbert	2172	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _17 July 2001_ .

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1-44_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-44_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

        3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _15_ .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: .

DETAILED ACTION

1.   Claims 1-44 are pending in this communication filed 17 July 2001, entered as Request for

CPA, paper no. 16.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

3.   Claims 1-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bristor

(US 6,018,342).

With respect to claim 1, maintaining in a memory a state history of a document for storing

document states (col. 11, lines 56-67 and col. 12, lines 1-3) and whenever an operation of a

predetermined type has occurred, automatically capturing the state of the document as it exists

after operation and adding the captured state to the state history (col. 3, lines 20-35 and col. 4,

lines 5-27). Bristor did not explicitly teach, capturing the state of the document as it exists after

the operation, but it would have been obvious to one having ordinary skill in the art at the time

the invention was made to capture the state of the document as it exists after the operation and to

modify in Bristor because such a modification would allow a user in Bristor's system to create a

draft ("snapshot") of the current state of the document at a particular point in time.

With respect to claim 2, the memory comprises a disk file (col. 12, lines 10-13).

With respect to claim 3, the state history includes states of the document and the order in which the stored states were automatically added to the state history (col. 5, lines 19-30), the state history is displayed to a user as a list of document states shown in their stored order (col. 11, lines 49-60), an operation is classified as an interesting operation if it changes the state of the document (col. 3, lines 53-60 and col. 4, lines 42-55), a state is added to the state history only if the operation creating the state is classified as an interesting operation and not otherwise (col. 3, lines 61-67 and col. 4, lines 1-4), performing a step backward operation by installing as the current state of the document a state stored in the state history, all backward operations place the document in a state that occurred immediately after an interesting operation (col. 4, lines 5-19), and performing a step forward operation by installing as the current state of the document a state stored in the state history, all step forward operations place the document in a state that occurred immediately after an interesting operation (col. 4, lines 19-27 and lines 23-25).

With respect to claim 4, the list of document states displayed to the user comprises a list of items, each item representing a state of the document that existed after an interesting operation and that can be recovered with a step backward operation in the application (col. 2, lines 30-60) and the list of document states displayed to the user comprises a list of items, each item representing a state of the document that existed after an interesting operation and that can be recovered directly by selecting the item (col. 4, lines 28-49).

With respect to claim 5, the application provides a tool operable under user control to obtain source material from any state in the state history and apply it to a current state of the

document (col. 1, line 35-40 and lines 58-67). Bristor did not explicitly teach, the application is a digital graphics program operable to create and revise images in digital form and the images are raster images, but it would have been obvious to one having ordinary skill in the art at the time the invention was made to create and to revise the images in digital form as raster images and to modify in Bristor because such a modification would allow the graphics program to decide what action is to be taken with the image being displayed on the visual display representing any kind of document such as a scanned picture in a bitmapped format or any other type of document.

With respect to claim 6, the application enables a user to select any item in the display list of items and cause the application to create a new document having the document state corresponding to the selected item (col. 4, lines 28-39). Bristor did not explicitly teach, creating a new document having the document state corresponding to the selected item, but it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the document state correspond to the selected item and to modify in Bristor because such a modification would allow the operating system application program to create a document for each associated command that is executed in the application program linking the command together in a sequential list.

With respect to claim 7, each of the captured states in the state history maintains the state data in essentially its original form whereby the captured state data is suitable for immediate use in other operations (col. 4, lines 56-67 and col. 5, lines 1-7).

With respect to claim 8, maintaining a first history of interesting operations and a second history of all operations requested by a user, the second history but not the first history including operations global to the state of the application (col. 3, lines 61-67, col. 4, lines 1-4 and col. 5, lines 8-30). Bristor did not explicitly teach, operations global to the state of the application, but it would have been obvious to one having ordinary skill in the art at the time the invention was made to have operations global to the state of the application and to modify in Bristor because such a modification would allow a user to change the user preferences in an application.

With respect to claim 9, receiving from the user a sequence of commands to change the document (col. 6, lines 11-16 and lines 45-61), changing the document state in response to each command (col. 6, lines 29-51), for each document state added to the state history, adding a corresponding entry to a history list displayed to the user on a computer-controlled display device operated as part of a graphical user interface (col. 2, lines 30-44 and lines 61-67), and in response to a user action stepping backward to an item in the history list, updating the document to have the corresponding document state saved in the state history (col. 4, lines 15-19). Bristor did not explicitly teach, adding the changed document state to a state history maintained in a computer-readable memory device each time the document state is changed, but it would have been obvious to one having ordinary skill in the art at the time the invention was made to have a state history maintained in a computer readable memory device and to modify in Bristor because such a modification will allow changes to be made to a document and the changes to be stored in volatile

memory and to be saved to a more permanent memory such as magnetic tape to prevent loss in

the event of a software or hardware error causing the computer to freeze.

With respect to claim 10, Bristor did not explicitly teach, the state history and the history

list are limited to storing a preset number of items and excess items are scrolled off the top of the

list as new items are added, but it would have been obvious to one having ordinary skill in the art

at the time the invention was made to have preset items and the excess items scrolled off the top

of the list when new items are added and to modify in Bristor because such a modification with

each action would be stored sequentially in the history list and to undo an action, the last action

stored would be scrolled off the list and the application would take whatever measures are

required to undo an action.

With respect to claim 11, the state history is stored in a region of memory and the oldest

document states in the state history are discarded when free space in the region runs low (col. 12,

lines 53-62 and col. 13, lines 30-58).

With respect to claim 12, the oldest document states are found and discarded by a memory

management process (col. 14, lines 51-63). Bristor did not explicitly teach, a memory

management process, but it would have been obvious to one having ordinary skill in the art at the

time the invention was made to have a memory management process and to modify in Bristor

because such a modification in Bristor's computer system will be able to maintain a limited

amount of memory for data storage and the oldest data will usually be deleted (discarded).

With respect to claim 13, a command to change the document that comes after a step backward command to a selected item in the history list causes the items after the selected item to be deleted from the history list and the corresponding document states to be deleted from the state history (col. 4, lines 5-19 and lines 56-65).

With respect to claim 14, a command to change the document that comes after a step backward command to a selected item in the history list does not cause the items after the selected item to be deleted from the history list and adds a new item to the end of the history list and a new document state to the state history (col. 4, lines 31-52).

With respect to claim 15, enabling a user interface gesture on the history list to create a new document from a document state from the state history (col. 3, lines 55-60). Bristor did not explicitly teach, a user interface gesture, but it would have been obvious to a person of ordinary skill in the art at the time the invention was made to have a user interface gesture and to modify in Bristor because such a modification would allow the user to select an icon and to perform an operation on the list to create a document.

With respect to claim 16, keeping a history list (col. 3, lines 61-66), going back to a previous state in the history list (col. 4, lines 7-13), selecting a future state from the history list, being a state created after the previous state, as a source of data for an operation (col. 4, lines 15-23) and performing the operation with the future data on the previous state (col. 4, lines 23-27). Bristor did not explicitly teach, going back to the previous state in the history list, but it would have been obvious to one having ordinary skill in the art at the time the invention was made to go

back to the previous state in the history list and to modify in Bristor in view of Bristor's teachings

of a step backward command in the history list in col. 4, lines 7-10 and because such a

modification would allow Bristor's system to allow a user to display and to retrieve the Web

document which immediately follows the currently displayed Web document in the history list.

With respect to claim 17, keeping a history of document states created by a user (col. 4,

lines 32-52) and enabling the user to step backward and forward through the history and thereby

to alter the state of the document to be any of the document states in the history (col. 4, lines 56-

65). Bristor did not explicitly teach, enabling the user to discard any of the history, but it would

have been obvious to one having ordinary skill in the art at the time the invention was made to

enable the user to discard any of the history and to modify in Bristor because such a modification

in Bristor would allow the history list of a document and the commands performed to be updated

frequently by a user.

With respect to claim 18, keeping a history of document states created automatically

whenever a user command to the application changes the state of a document (col. 2, lines 61-67

and col. 3, lines 1-29) and enabling the user to designate any one of the document states in the

history (col. 4, lines 65-67 and col. 5, lines 1-7). Bristor did not explicitly teach, enabling the user

to discard any user-selected set of the document states in the history and to install the designated

state as the current state of the document, but it would have been obvious to one having ordinary

skill in the art of document states at the time the invention was made to enable the user to discard

any of the history and to install a designated state as the current state of the document and to

modify in Bristor because such a modification would allow the history of a document to be updated and any unneeded history relating to the document to be discarded (deleted) by the user since the user knows the sequence of the commands performed.

With respect to claim 19, saving the history when the document is closed on a long-term storage medium, whereby the history may be restored when the document is later opened and across invocations of the application (col. 12, lines 3-13 and col. 13, lines 24-28).

With respect to claim 20, the saved history resides in the document with final document data (col. 14, lines 64-67 and col. 15, lines 1-8). Bristor did not explicitly teach, the saved history resides in the document with final document data, but it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the history reside with the final document data and to modify in Bristor because such a modification would allow the previously generated data to be represented to the user and associated with the stored (saved) data.

With respect to claim 21, the saved history resides in a long-term data repository independent of the original document (col. 17, lines 44-67 and col. 18, lines 1-3).

With respect to claim 22, identifying for the user on a display device a set of states that the document has been in by operation of the application (col. 9, lines 10-31 and col. 12, lines 7-8 and lines 31-49) and enabling the user to designate any arbitrary one of the identified states (col. 9, lines 32-47). Bristor did not explicitly teach, identifying to the user on a display device a set of states and providing the user an editing tool having the designated state as a document state operand, but it would have been obvious to one having ordinary skill in the art at the time the

invention was made to identify to the user the states on a display device and provide the user with

an editing tool having the designated state as a document state operand and to modify in Bristor

because such a modification will allow the user to be able to see what commands have been

entered and what operations have been performed on the document and the user will be able to

use the editing tool to give editing commands provided by the system such as cut, copy, paste,

undo, and redo.

With respect to claim 23, Bristor did not explicitly teach, displaying the document in a

user interface window the document being a digital image, but it would have been obvious to one

having ordinary skill in the art at the time the invention was made to display the document in a

user interface window and for the document to be a digital image and to modify in Bristor

because such a modification would enable the user to perform operations on the displayed

document image by selecting the icons (pictures) by using a mouse.

With respect to claim 24, displaying user-interface elements for applying filters to the

digital image (col. 1, lines 58-65). Bristor did not explicitly teach, applying filters to a digital

image, but it would have been obvious to one having ordinary skill in the art at the time the

invention was made to apply the filters to a digital image and to modify in Bristor because such a

modification would allow many of the image processing functions to be built into paint and

photopaint programs and to be applied as filters to the image.

With respect to claim 25, installing the designated state as the current state of the

document in response to a user command (col. 2, lines 10-29).

With respect to claim 27, Bristor did not explicitly teach, providing the user an delete tool for deleting the designated state from the set of states, but it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the user with a delete tool having a designated state and to modify in Bristor because such a modification would allow the user to undo a command using a mouse action after the command has been performed on a document.

With respect to claim 28, the set of states is identified by displaying a scrollable list of elements each identifying one of the states in the set (col. 4, lines 23-27). Bristor did not explicitly teach, displaying a scrollable list of elements, but it would have been obvious to one having ordinary skill in the art at the time the invention was made to display a scrollable list of elements and to modify in Bristor because such a modification would allow each menu to contain a scrollable list of the menu items and the command to reflect its current appearance when displayed to the user.

With respect to claim 29, Bristor did not explicitly teach, the list of elements are ordered by the time the corresponding states were created, but it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the list of elements ordered by the time the corresponding states are created and to modify in Bristor because such a modification would allow Bristor's system to have the steps carried out in (1) order of creation command, (2) add a menu item, and (3) mark the menu's appearance to correspond to the menu item.

With respect to claim 30, the designation and installation are performed in response to a single command (col. 4, lines 7-10 and lines 23-25).

With respect to claim 31, enabling the user to make a gesture on a user interface indicating a sequence of displayed state identifiers and responding to the gesture by displaying the document in the states indicated as the gesture is made (col. 3, lines 40-60).

With respect to claim 32, Bristor did not explicitly teach, enabling the user to modify the document state after the installing step and adding the document state resulting from the modification to the set of states identified on the display device, but it would have been obvious to one having ordinary skill in the art at the time the invention was made to have an installing step and to modify in Bristor because such a modification would allow the user to create a state for each command in the system and the document to be displayed for the modification of the document.

With respect to claim 33, the set of states is displayed in order of creation of the states in the set (col. 4, lines 31-52).

With respect to claim 34, Bristor did not explicitly teach, the document is a digital image, but it would have been obvious to one having ordinary skill in the art of documents at the time the invention was made to have the document as a digital image and to modify in Bristor because such a modification would allow the image being displayed to represent any kind of a document such as a scanned picture in a bitmapped format or any other type of document that may be represented on a computer screen.

With respect to claim 35, providing a step backward and a step forward command for the user to execute to navigate the set of states (col. 4, lines 5-7 and lines 25-27) and providing a separate undo and redo command for the user to undo and redo commands entered by the user (col. 4, lines 15-25). Bristor did not explicitly teach, providing a separate undo and redo command for the user to undo and redo commands, but it would have been obvious to a one having ordinary skill in the art at the time the invention was made to provide separate undo and redo commands and to modify in Bristor because such a modification would enable the user to toggles between the two states of a document and to make a comparison of a result of the command.

With respect to claim 36, this dependent claim is rejected for the similar rationale as given for claim 35.

With respect to claim 37, this independent claim is rejected for the similar rationale as given for claim 1.

With respect to claim 38, Bristor teaches a computer-readable storage medium embodying program instructions (col. 12, lines 1-4 and lines 12-13), maintain a first history of interesting operations and a second history of all operations requested by a user, the second history but not the first history including operations global to the state of the application (col. 3, lines 61-67, col. 4, lines 1-4, and col. 5, lines 5-30). Bristor did not explicitly teach, operations global to the state of the application, but it would have been obvious to one having ordinary skill in the art at the time the invention was made to have operations global to the state of the application and to

modify in Bristor because such a modification would allow a user to change the user preferences

in an application.

With respect to claim 39, this independent claim is rejected for the similar rationale as

given for claim 9.

With respect to claim 40, this independent claim is rejected for the similar rationale given

for claim 16.

With respect to claim 41, this independent claim is rejected for the similar rationale given

for claim 17.

With respect to claim 42, this independent claim is rejected for the similar rationale given

for claim 18.

With respect to claim 43, this independent claim is rejected for the similar rationale given

for claim 22.

With respect to claim 44, Bristor did not explicitly teach, providing the user a first undo

command function that operates with reference to the first history and a second undo command

function that operates with reference to the second history; but it would have been obvious to one

having ordinary skill in the art at the time the invention was made to provide the user with a first

undo command function that operates with reference to the first history and a second undo

command function that operates with reference to the second history and in view of Bristor's

teaching of a backward command and a forward command in col. 4, lines 5-7 and to modify in

Bristor because such a modification would allow Bristor's content based history mechanism to

enable a user to use the first undo command for the first history mechanism of the list of the most recently retrieved commands and the second history mechanism to store the second undo command in a history database with user data specifying an undo command which the user identifies as important.

Conclusion

4.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Matheny et al (5,551,055) taught scrolling a list, a thumbnail (a small graphical representation of the data), a user interface, and undo and redo commands.

Baker et al (6,185,591) taught a text editing system with undo/redo functions.

5.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ella Colbert whose telephone number is (703)308-7064. The examiner can normally be reached Monday through Thursday from 6:30 a.m. to 5:00 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu, can be reached on (703)305-4393.

Any response to this action should be mailed to:

>   Commissioner of Patents and Trademarks
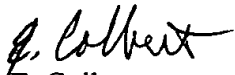>   Washington, D.C. 20231

Or faxed to:

(703)746-7238 or (703)746-7239, (for formal communications intended
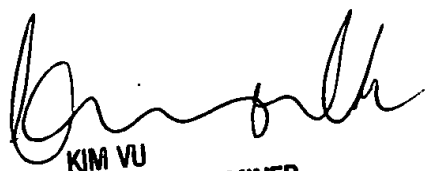
for entry).

Or:

(703)746-7240 (for informal or draft communications, please label

"PROPOSED" or "DRAFT").

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal
Drive, Arlington, Virginia., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding
should be directed to the Group Receptionist whose telephone number is (703)308-9600.

E. Colbert
September 27, 2001

KIM VU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100